PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P28118/WO Kf	FOR FURTHER ACTION	See Form PCT/IPEA/416						
International application No.	International filing date (day/month/year)	Priority date (day/month/year)						
PCT/EP2004/005904	01.06.2004	11.07.2003						
International Patent Classification (IPC) or nati B62D5/093, B62D3/14,		B62D5/09						
Applicant BRUENINHAUS HYDROMATIK GMBH								
This report is the international preli- under Article 35 and transmitted to the		this International Preliminary Examining Authority						
2. This REPORT consists of a total of	6 sheets, incl	luding this cover sheet.						
3. This report is also accompanied by A	NNEXES, comprising:							
a. (sent to the applicant and	to the International Bureau) a total of	sheets, as follows:						
		een amended and are the basis for this report and/or ee Rule 70.16 and Section 607 of the Administrative						
sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.								
b. (sent to the International	Bureau only) a total of (indicate type and m	umber of electronic carrier(s))						
, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).								
4. This report contains indications relati	ng to the following items:							
Box No. I Basis of the	report	report						
Box No. II Priority								
Box No. III Non-establi	shment of opinion with regard to novelty, is	nventive step and industrial applicability						
Box No. IV Lack of uni	ty of invention							
	Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement							
Box No. VI Certain doc	Box No. VI Certain documents cited							
Box No. VII Certain def	Box No. VII Certain defects in the international application							
Box No. VIII Certain obs	ervations on the international application							
Date of submission of the demand	Date of completion	of this report						
Name and mailing address of the IPEA/EP	Authorized officer							

Translation

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International application No.
PCT/EP2004/005904

Box	No. I		Basis of the report			
1.			to the language, this report is based on the internation der this item.	al application in the language in	which it was filed, unless otherwise	
			eport is based on translations from the original languag is the language of a translation furnished for the purpo		•	
		_ i	international search (Rule 12.3 and 23.1(b))		'	
		╝,	publication of the international application (Rule 12.4)			
			international preliminary examination (Rule 55.2 and/o			
2.	With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report): the international application as originally filed/furnished the description:					
		pages	1-15		as originally filed/furnished	
		pages'	<u> </u>	received by this Authority on		
		pages'	•	received by this Authority on		
	\boxtimes	the cla	aims:			
		nos.			as originally filed/furnished	
		nos.*		as amended (togethe	r with any statement) under Article 19	
		nos.*	1-16	received by this Authority on	11.02.2005 with letter of 11.02.2005	
		nos.*				
	\boxtimes	the dr	awings:			
		sheets			as originally filed/furnished	
		sheets				
		sheets				
		a seou	nence listing and/or any related table(s) – see Suppleme		isting.	
3	\Box		mendments have resulted in the cancellation of:			
Э.	_	\Box				
			the description, pagesthe claims, nos.	-		
		一				
			the drawings, sheets/figs			
4			report has been established as if (some of) the amenda			
7.	Ш	they h	have been considered to go beyond the disclosure as file	ed, as indicated in the Supplement	ntal Box (Rule 70.2(c)).	
		Ц	the description, pages			
		Ц	the claims, nos.			
			the drawings, sheets/figs			
			the sequence listing (specify):			
			any table(s) related to sequence listing (specify):			
*	If ite	ет 4 ар	plies, some or all of those sheets may be marked "supe	rseded."		

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement				
1.	Statement			
	Novelty (N)	Claims 9, 11-15	_ YES	
		Claims 1-8, 10, 16	_ NO	
	Inventive step (IS)	Claims 9, 11-15	_ YES	
		Claims 1-8, 10, 16		
	Industrial applicab	ility (IA) Claims 1-16	YES	
		Claims		
2.	Citations and explanat	ions (Rule 70.7)		
-	-	s report makes reference to the following		
documents:		•		
	D1:	FR-A-1 251 296 (BATIGNOLLES CHATILLON)		
		20 January 1961 (1961-01-20)		
	D2:	US-A-2 816 420 (WALSH JOSEPH H) 17 December		
		1957 (1957-12-17)		
	D3:	DE 35 36 563 A (ZAHNRADFABRIK		
		FRIEDRICHSHAFEN) 30 April 1986 (1986-04-30)		
	D4:	US-A-4 367 803 (WITTREN RICHARD A) 11 January		
		1983 (1983-01-11)		
	D5:	US-A-3370422 - introduced following		
		establishment of the search report		
	D6:	US-A-3554312 - introduced following		
		establishment of the search report		
	2 INDE	EPENDENT CLAIM 1		
	The	present application does not meet the		
	requirements of PCT Article 33(1) because the subject matter of claim 1 lacks novelty (PCT			
1	Arti	icle 33(2)).		

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Document D1 discloses (the references between parentheses refer to that document):

a hydraulic vehicle steering system comprising at least two steering cylinders (5, 6), in which cylinder pistons (11, 12) can be displaced, the positions of which set the steering angle of the wheels (17, 18), each piston (11, 12) dividing the steering cylinder (5, 6) into two pressure chambers, and comprising a first hydraulic pump (1), which can be adjusted with respect to the swept volume and the first connection (2) of which is connected to one of the pressure chambers of the first (7) and second (9) steering cylinders, depending on the steering direction, the second connection (3) of the hydraulic pump (1) being connected to the other pressure chamber of the first (8) and second (10) steering cylinders.

The subject matter of the independent claim thus lacks novelty over D1.

The subject matter of claim 1 also lacks novelty over D4 - see the passages cited in the search report.

The subsequently introduced documents, D5 (see, e.g., figs. 1-3) and D6 (see, e.g., fig. 3), also disclose the subject matter of claim 1 in a manner that is prejudicial to novelty.

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

3 DEPENDENT CLAIMS 2-8, 10, 16

Claims 2-8, 10 and 16 do not contain any features which, in combination with the features of any claim to which they refer, meet the PCT requirements for **novelty** in relation to D1, D5 or D6 taken alone (for each of claims 2-5) and in relation to D5, figs. 1-3 (for the newly submitted claim 16) and for **inventive step** in relation to D1 (or D5 or D6) and D2 or in relation to D1 (or D5 or D6) and D3 (for claims 6-8 and 10). Compare, for example, the passages cited in the search report and figures 1-3 in D5 and figure 3 in D6 (PCT Article 33(1) to (3) and (6)).

4 DEPENDENT CLAIMS 9, 11-15

The combinations of features contained in dependent claims 9 and 11-15 are neither disclosed nor suggested by the available prior art (D1-D4):

Specifically, the use of a second hydraulic pump for hydraulically controlling the first hydraulic pump in line with the displacement of a steering component is neither disclosed nor suggested in this feature combination by the prior art (compare specifically with D4, figure 1).

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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

The following points appear to be vague and undefined and as such render the scope of the claim in question unclear; furthermore, the exact meaning thereof is not sufficiently disclosed by the description; claims 3, 4, 6 and 11 therefore fail to meet the requirements of PCT Articles 5 and 6:

Claims 3, 4:

It is not clear from the wording of claims 3 and 4 how the pump is intended to work; it appears as if it is intended that the pump is not a suction pump, but merely a pressure pump; the "two quadrant operation" was interpreted to mean: the direction of displacement and the swept volume are dependent on the steering direction and angle, respectively.

Claim 6:

Claim 6 should include a definition of the function of the control valve in terms of its technical features.

"... a control valve" was interpreted to mean a twoway (not inventive in relation to D3, reference 43) or a multi-way control valve.